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Tropidodipsas sartorii (Cope, 1863) (Squamata: Dipsadidae): an addition to the snake fauna from Guerrero, Mexico

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Abstract

We report for the first time on the presence of the snake *Tropidodipsas sartorii* in the Mexican state of Guerrero. According to distribution and morphological evidence, the specimen reported herein is a representative of the subspecies *T. s. macdougalli*.

Key Words

Southern Mexico, Pacific coast, *Tropidodipsas sartorii*, new state record, Guerrero

The ophidiofauna is one of the most important components of the biodiversity of Mexico due to its high species richness and number of country endemics (Flores-Villela and García-Vázquez 2014, Heimes 2016). Recently, Palacios-Aguilar and Flores-Villela (2018) published an update on the herpetofauna from Guerrero reporting a total of 98 snake species of which three belong to the genus *Tropidodipsas* (*T. annulifera* Boulenger, 1894, *T. fasciata guerreroensis* Taylor, 1939, and *T. zweifeli* Liner & Wilson, 1970). Snakes of the genus *Tropidodipsas* are nocturnal, and primarily terrestrial, distributed in Mexico and Nuclear Central America that have specialized diets based mostly on snails and slugs (Kofron 1985, Köhler 2008). Currently, a total of seven species are recognized (Wallach 1995, Smith et al. 2005, Heimes 2016) that collectively range from Sonora and Nuevo León, Mexico southwards to Nicaragua (Kofron 1985, Smith and Lemos-Espinal 2006). Of these, *T. sartorii* is characterized by having dorsal scales generally arranged in 17-17-17 rows, all of them of equal size, keeled and with apical pits present or absent; cylindrical body; 165–200 ventral scales; 40–77 subcaudals; entire cloacal plate; and a distinctive color pattern of long dark bands alternated with light colored rings (Kofron 1988, Lee 2000). It has a known distribution from Nuevo León, Mexico southwards to Honduras on the Atlantic versant and from near the Isthmus of Tehuantepec in Oaxaca, Mexico to Nicaragua on the Pacific (Kofron 1988, Köhler 2008). Here we report on the first known record of this species from the state of Guerrero, Mexico.

On 21 August 2013 at 0830 h an adult female *T. sartorii* (Museo de Zoología, Facultad de Ciencias, Univerisdad Nacional Autónoma de México [MZFC] 32971) was found dead on the road at kilometer 7+760

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PENSOFT.

Figure 1. Dead on road female specimen of *Tropidodipsas sartorii* from Guerrero, Mexico (MZFC 32971).

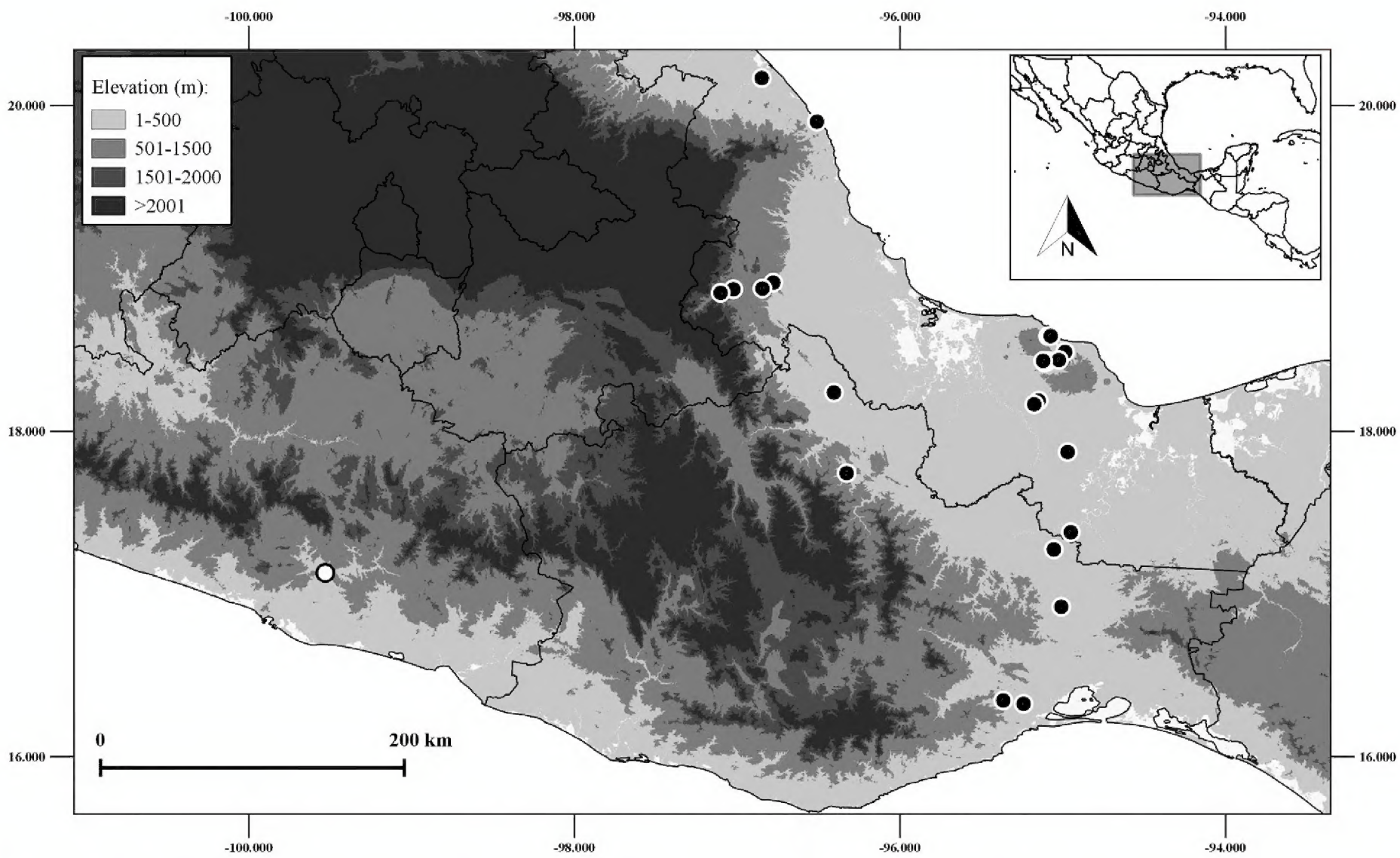

Figure 2. Distribution map showing the known range of *Tropidodipsas sartorii* in Mexico. The open circle represents the new record reported herein.

on the Tierra Colorada–Ayutla de los Libres highway (17.129312°N, -99.531277°W; WGS-84), Guerrero, Mexico, 214 m by JCBH (Fig. 1). The total length was of 895 mm, snout-vent length 729 mm; head length 18 mm; head width 13.6 mm; snout length (from tip of the snout to anterior end of the eye) 6.6 mm; eye diameter 1.8 mm; preoculars 3 on both sides; postoculars 2 on both sides; loreal scales 2/1 (left/right); temporal scales 2+2/1+2; supralabials 8, 4–5 entering the orbit; infralabials 11/10, 1–7 in contact with anterior chin shields; dorsal scales arranged in 17-17-17 rows, smooth and without distinctive keels or apical pits, although slightly keeled at the level of ventrals 191–193; ventrals 196; cloacal plate entire; and subcaudals 68.

This new record extends the known distribution of the species 471.9 km WNW from the nearest locality record near Paso Alicia, W side of Cerro Guiengola, Oaxaca and represents the first record from Guerrero, Mexico (Kofron 1988, Fig. 2). Smith (1943) described *T. macdougalli* from the Isthmus of Tehuantepec, based on a female specimen, noting that it was different from *T. sartorii* by having, 1) more black rings on its body (27 vs 13–24); 2) more ventrals (199 vs 173–185); 3) more subcaudals (65 vs 54–63 in females); and 4) lacking keels or apical pits on dorsal scales (vs presence). Later, Kofron (1988) considered *T. macdougalli* as a subspecies of *T. sartorii* and provided an "extended" diagnosis based on the acquisition of an additional male specimen and discussion on the differentiation of both taxa. Our specimen agrees well with the diagnosis and variation known for *T. s. macdougalli* although slightly differs from it by a lower number of ventrals (196 vs 198–200), fewer light rings on body (13 vs 21–27), and higher number of infralabials (11/10 vs 8–9) (Smith 1943, Kofron 1988). Also, our specimen present other aberrant scutellation features such as: 7 infralabials contacting the anterior chinshields (usually 4–5); 10–11 infralabials (normally 7–10); temporal scales 2+2 on the right side, although the "second" primary temporal seems to be a malformed scale between the "first" primary temporal an the junction of the secondary temporals series; and two loreals on one side of the head (normally 1, but see Kofron 1988 for a review of the variation exhibited in the species).

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